REMARKS/ARGUMENTS

I. Introduction:

Claims 29 and 30 are added herein. With entry of this amendment, claims 1-30 will be pending.

The drawings were objected to because the Figures were hand written. Replacement sheets 1-5 are provided herein.

II. Claim Rejections – 35 U.S.C. 103:

Claims 1-28 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 6,643,269 (Fan et al.) in view of U.S. Patent No. 6,188,675 (Casper et al.).

Fan et al. disclose a routing switch for automatically identifying network topology. Each node in a network transmits its unique address to its neighboring node. If a node receives a different message from its neighbor, the node identifies a topology change in the network. In response to the topology change, the nodes in the network modify routing tables and other information stored at the node related to the topology. As shown in Fig. 1, the network may have a ring topology. Fan et al. are concerned with providing a dual addressing mechanism for use as a general topology discovery mechanism. The mechanism utilizes a session identifier that devices in the network place on all neighbor status messages. The detection of an incremented session number signals to other devices that a new round of topology discovery has started.

Fan et al. do not show or suggest receiving ring connection polarity information containing a ring connection polarity state, as required by claim 1. As set forth in the specification of the present application, polarity identifies the different rings in a dual ring network. Fan et al. describe how to detect general topology changes such as deletion or addition of nodes or circuits, but do not address sending or receiving any polarity information. Fan et al. are not concerned with distinguishing between two rings.

As noted by the Examiner Fan et al. do not disclose receiving ring connection information containing an indication whether a ring connection polarity is fixed or floating. As defined in the specification, a node is considered to be in a floating state if it has not yet adapted the actual network polarity. A node is in a fixed state once it acquires the correct polarity. With respect to the limitation of claim 1 of polarity information indicating whether a ring connection polarity is fixed or floating, the Examiner cites Casper et al.

Applicants' respectfully submit that Casper et al. do not show or suggest receiving ring connection polarity information indicating whether a ring connection polarity state is fixed or floating. Casper et al. disclose a system and method for self-identifying and configuring the nodes of a network. A node address indicator is designated for insertion in a packet to be sent from a node with a known address to an adjacent node with unknown address. Provisions for identifying node additions and deletions are provided. Progressive identification of the network is performed by allowing interrogation of next adjacent network nodes. Network topology is discovered by identifying the network node by node.

The Examiner states that Casper discloses "configuring a node that has an unknown topology (floating) by sending information regarding known network topology (fixed) from an adjacent node." First, there is no disclosure in Casper et al. of receiving an indication whether a ring connection polarity state is fixed or floating. As discussed above, fixed or floating refers to whether the node has the correct network polarity. There is no disclosure of identifying or obtaining polarity information in Casper et al. In fact, Casper et al. do not show or describe a dual ring network, thus, there is no reason to indicate polarity.

Second, Casper et al. do not even show or suggest receiving an indication whether a network topology is known or unknown, as suggested by the Examiner. A node, such as a managing node, is sent to a node with an unknown address. Upon receipt of the packet, the unknown node is initialized. The progressive identifying of the network topology is performed by always sending out packets from a node with a known address to nodes with an unknown address. Thus, when a packet is received at an adjacent known, there is no

question as to whether the address is known or unknown at the adjacent node sending the packet.

Furthermore, neither Fan et al. nor Casper et al. show or suggest adopting a ring connection polarity state of an adjacent node if a ring connection polarity state configured at the adjacent node is fixed, as set forth in claim 1.

Accordingly, claim 1 is submitted as patentable over Fan et al. and Casper et al. Claims 2-7 and 29-30, depending either directly or indirectly from claim 1, are submitted as patentable for at least the reasons discussed above with respect to claim 1.

Claims 8 and 15 are directed to an apparatus and claim 22 is directed to a computer program product for operating or configuring a network node that is connected in a dual ring, and are submitted as patentable for the reasons discussed above with respect to claim 1.

Claims 9-14, depending from claim 8, claims 16-21, depending from claim 15, and claims 23-28, depending from claim 22, are also submitted as nonobvious over the prior art of record for the same reasons as claims 8, 15, and 22, respectively.

Claims 2, 9, and 16 are further submitted as patentable because the prior art does not show or suggest transmitting ring connection polarity information to a second adjacent node including the adopted ring connection polarity state and an indication that the adopted ring connection polarity state is fixed if the ring connection polarity state configured at the first adjacent node is fixed. In rejecting claim 2, the Examiner simply states that Fan discloses each network node transmitting a message address to its neighboring node and topology information being propagated to other nodes in the network.

With respect to claims 3, 4, 10, 11, 17, 18, 24, and 25 neither Fan et al. nor Casper et al. show or suggest adopting a default ring connection polarity state if a ring connection polarity state at a first adjacent node is floating. As noted by the Examiner, Casper et al. merely disclose sending a message to an adjacent node having an unknown network address. The unknown node returns a message containing its address. The system would not work if a default value was applied for the nodes having an unknown address.

Claims 7, 14, 21, and 28 are further submitted as patentable over Fan et al. and Casper et al., which do not show or suggest receiving a path trace message and extracting the ring connection polarity information from the path trace message. In rejecting claim 7, the Examiner identifies the session identifier of Fan et al. as a path trace message. The session identifier is placed by a device in a neighbor status message and is used to signal to other devices that a new round of topology discovery has started. The session identifier is not a path trace message, which as defined by the SONET standard, identifies the logical interface transmitting the message.

III. Conclusion:

For the foregoing reasons, Applicants believe that all of the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite prosecution of the application, please do not hesitate to call the undersigned at (408) 399-5608.

Respectfully submitted,

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Amendments to the Drawings:

Formal drawings are provided in the attached sheets. Sheets 1-5 replace the original sheets including Figures 1-5.

Attachment: Replacement Sheets 1-5